

पेटेंट कार्यालय
शासकीय जर्नल

**OFFICIAL JOURNAL
OF
THE PATENT OFFICE**

निर्गमन सं. 45/2023
ISSUE NO. 45/2023

शुक्रवार
FRIDAY

दिनांक: 10/11/2023
DATE: 10/11/2023

पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202331075385 A

(19) INDIA

(22) Date of filing of Application :04/11/2023

(43) Publication Date : 10/11/2023

(54) Title of the invention : SPEECH-TO-TEXT COMMAND EXECUTOR FOR SPECIALLY-ABLED PEOPLE

<p>(51) International classification :G10L0015260000, G10L0015220000, G06F0003048830, H04M0003420000, G10L0015300000</p> <p>(86) International Application No :PCT// Filing Date :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)Brainware University, Kolkata Address of Applicant :398, Ramkrishnapur Rd, Near Jagadighata Market, Barasat, Kolkata, West Bengal 700125 ----- -----</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Dr.Naveen Kumar Raman Address of Applicant :Associate Professor, Dept. of Computer Sciences and Engineering, Brainware University, Kolkata ----- -----</p> <p>2)Mr. Spandan Mukherjee Address of Applicant :2nd Year Student, Diploma in CSE, Brainware University, Kolkata, West Bengal 700125 ----- -----</p> <p>3)Mrs. Tandra Mukherjee Address of Applicant :B-32/304, Peerless Nagar, 29F BT Road, Sodepur, Kolkata- 700114 ----- -----</p> <p>4)Mr. Amit Kumar Bhowre Address of Applicant :Assistant Professor, Dept. of Computational Sciences, Brainware University, Kolkata ----- -----</p> <p>5)Ms. Rubi Sarkar Address of Applicant :Assistant Professor, Dept. of Computational Sciences, Brainware University, Kolkata ----- -----</p> <p>6)Ms. Trisha Nath Address of Applicant :Assistant Professor, Dept. of Computational Sciences, Brainware University, Kolkata ----- -----</p> <p>7)Ms. Shramana Ghosh Address of Applicant :Assistant Professor, Dept. of Computer Sciences and Engineering, Brainware University, Kolkata ----- -----</p>
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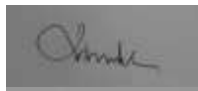




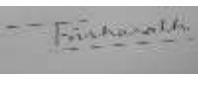
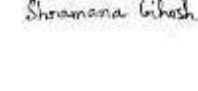
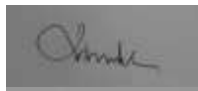




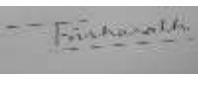
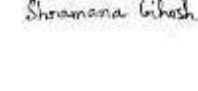
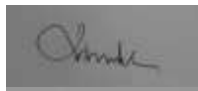




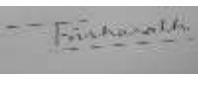
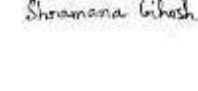
(57) Abstract :

This invention presents a Speech-to-Text Command Executor for Specially-abled people. The present invention comprising of a speech recognition module with the capability to transform spoken commands into textual format, a proficient command processing module responsible for deciphering text-based commands and executing corresponding actions, a user interface module that simplifies user engagement with the system and a user-customizable command library, enabling users to define their unique speech-to-text commands. The speech recognition module utilizes a natural language processing interface for enhanced accuracy in comprehending and transcribing spoken commands. Further, incorporating a multi-modal interaction component that empowers users to engage with the system through a blend of speech, touch, or gestures. Accompanied Drawing [FIG. 1-2]

No. of Pages : 17 No. of Claims : 8

“FORM 1 THE PATENTS ACT 1970 (39 of 1970) and THE PATENTS RULES, 2003 APPLICATION FOR GRANT OF PATENT (See section 7, 54 and 135 and sub-rule (1) of rule 20)				(FOR OFFICE USE ONLY)	
				Application No.	
				Filing date:	
				Amount of Fee paid:	
				CBR No:	
				Signature:	
1. APPLICANT'S REFERENCE / IDENTIFICATION NO. (AS ALLOTTED BY OFFICE)					
2. TYPE OF APPLICATION [Please tick (✓) at the appropriate category]					
Ordinary (✓)		Convention ()		PCT-NP ()	
Divisional ()	Patent of Addition ()	Divisional ()	Patent of Addition ()	Divisional ()	Patent of Addition ()
3A. APPLICANT(S)					
Name in Full		Nationality	Country of Residence	Address of the Applicant	
Brainware University, Kolkata		Indian	India	398, Ramkrishnapur Rd, Near Jagadighata Market, Barasat, Kolkata, West Bengal 700125	
3B. CATEGORY OF APPLICANT [Please tick (✓) at the appropriate category]					
Natural Person ()		Other than Natural Person			
		Small Entity (✓)		Startup ()	Others ()
4. INVENTOR(S) [Please tick (✓) at the appropriate category]					
Are all the inventor(s) same as the applicant(s) named above?		Yes ()		No (✓)	
If “No”, furnish the details of the inventor(s)					
Name in Full		Nationality	Country of Residence	Address of the Inventor	
1. Dr.Naveen Kumar Raman		Indian	India	Associate Professor, Dept. of Computer Sciences and Engineering, Brainware University, Kolkata	

2. Mr. Spandan Mukherjee	Indian	India	2nd Year Student, Diploma in CSE, Brainware University, Kolkata, West Bengal 700125
3. Mrs. Tandra Mukherjee	Indian	India	B-32/304, Peerless Nagar, 29F BT Road, Sodepur, Kolkata- 700114
4. Mr. Amit Kumar Bhore	Indian	India	Assistant Professor, Dept. of Computational Sciences, Brainware University, Kolkata
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6. Ms. Trisha Nath	Indian	India	Assistant Professor, Dept. of Computational Sciences, Brainware University, Kolkata
7. Ms. Shramana Ghosh	Indian	India	Assistant Professor, Dept. of Computer Sciences and Engineering, Brainware University, Kolkata
5. TITLE OF THE INVENTION			
"SPEECH-TO-TEXT COMMAND EXECUTOR FOR SPECIALLY-ABLED PEOPLE"			
6. AUTHORISED REGISTERED PATENT AGENT(S)	IN/PA No.		
	Name		
	Mobile No.		
7. ADDRESS FOR SERVICE OF APPLICANT IN INDIA	Name		Mahua Pal
	Postal Address		Brainware University, 398, Ramkrishnapur Rd, Near Jagadighata Market, Barasat, Kolkata, West Bengal 700125
	Telephone No.		
	Mobile No.		9831960033
	Fax No.		
	E-mail ID		registrar@brainwareuniversity.ac.in
8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION APPLICATION			

Country	Application Number	Filing date	Name of the applicant	Title of the invention	IPC (as classified in the convention country)																
9. IN CASE OF PCT NATIONAL PHASE APPLICATION, PARTICULARS OF INTERNATIONAL APPLICATION FILED UNDER PATENT CO-OPERATION TREATY (PCT)																					
International application number			International filing date																		
10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OF ORIGINAL (FIRST) APPLICATION																					
Original (first) application No.			Date of filing of original (first) application																		
11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54, PARTICULARS OF MAIN APPLICATION OR PATENT																					
Main application/patent No.			Date of filing of main application																		
12. DECLARATIONS																					
i) Declaration by the inventor(s)																					
<p>(In case the applicant is an assignee: the inventor(s) may sign herein below or the applicant may upload the assignment or enclose the assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period).</p> <p>I/We, the above named inventor(s) is/are the true & first inventor(s) for this Invention and declare that the applicant(s) herein is/are my/our assignee or legal representative.</p> <p>(a) Date 20/10/2023</p> <table border="1"> <thead> <tr> <th>(b) Name</th> <th>(c) Signature</th> </tr> </thead> <tbody> <tr> <td>1. Dr.Naveen Kumar Raman</td> <td></td> </tr> <tr> <td>2. Mr. Spandan Mukherjee</td> <td></td> </tr> <tr> <td>3. Mrs. Tandra Mukherjee</td> <td></td> </tr> <tr> <td>4. Mr. Amit Kumar Bhore</td> <td></td> </tr> <tr> <td>5. Ms. Rubi Sarkar</td> <td></td> </tr> <tr> <td>6. Ms. Trisha Nath</td> <td></td> </tr> <tr> <td>7. Ms. Shramana Ghosh</td> <td></td> </tr> </tbody> </table>						(b) Name	(c) Signature	1. Dr.Naveen Kumar Raman		2. Mr. Spandan Mukherjee		3. Mrs. Tandra Mukherjee		4. Mr. Amit Kumar Bhore		5. Ms. Rubi Sarkar		6. Ms. Trisha Nath		7. Ms. Shramana Ghosh	
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4. Mr. Amit Kumar Bhore																					
5. Ms. Rubi Sarkar																					
6. Ms. Trisha Nath																					
7. Ms. Shramana Ghosh																					
(ii) Declaration by the applicant(s) in the convention country																					
<p>(In case the applicant in India is different than the applicant in the convention country: the applicant in the convention country may sign herein below or applicant in India may upload the assignment from the applicant in the convention country or enclose the said assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period)</p>																					

~~I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.~~

~~(a) Date~~

~~(b) Signature(s)~~

~~(c) Name(s) of the signatory~~

(iii) Declaration by the applicant(s)

I/We the applicant(s) hereby declare(s) that: -

- ~~I am/ We are in possession of the above-mentioned invention.~~
- ~~The provisional/complete specification relating to the invention is filed with this application.~~
- ~~The invention as disclosed in the specification uses the biological material from India and the necessary permission from the competent authority shall be submitted by me/us before the grant of patent to me/us.~~
- ~~There is no lawful ground of objection(s) to the grant of the Patent to me/us.~~
- ~~I am/we are the true & first inventor(s).~~
- ~~I am/we are the assignee or legal representative of true & first inventor(s).~~
- ~~The application or each of the applications, particulars of which are given in Paragraph-8, was the first application in convention country/countries in respect of my/our invention(s).~~
- ~~I/We claim the priority from the above mentioned application(s) filed in convention country/countries and state that no application for protection in respect of the invention had been made in a convention country before that date by me/us or by any person from which I/We derive the title.~~
- ~~My/our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Paragraph-9.~~
- ~~The application is divided out of my /our application particulars of which is given in Paragraph-10 and pray that this application may be treated as deemed to have been filed on DD/MM/YYYY under section 16 of the Act.~~
- ~~The said invention is an improvement in or modification of the invention particulars of which are given in Paragraph-11.~~

13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION

(a) Form 2

Item	Details	Fee	Remarks
Complete/ Provisional specification) #	No. of pages: 13		
No. of Claim(s)	No. of claims: 08 No. of pages: 02		
Abstract	No. of pages: 01		

No. of Drawing(s)	No. of drawings: 02 No. of pages: 01		
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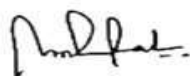
In case of a complete specification, if the applicant desires to adopt the drawings filed with his provisional specification as the drawings or part of the drawings for the complete specification under rule 13(4), the number of such pages filed with the provisional specification are required to be mentioned here.

- (b) Complete specification (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).
- (c) Sequence listing in electronic form
- (d) Drawings (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).
- (e) Priority document(s) or a request to retrieve the priority document(s) from DAS (Digital Access Service) if the applicant had already requested the office of first filing to make the priority document(s) available to DAS.
- (f) Translation of priority document/Specification/International Search Report/International Preliminary Report on Patentability.
- (g) Statement and Undertaking on Form 3
- (h) Declaration of Inventorship on Form 5
- (i) Power of Authority

(j) **Total fee ₹.....in Cash/ Banker's Cheque /Bank Draft bearing No.....
Date on Bank.**

I/We hereby declare that to the best of my/our knowledge, information and belief the fact and matters stated herein are correct and I/We request that a patent may be granted to me/us for the said invention.

Dated this 20th day of October 2023



**Registrar
Brainware University
Barasat, Kolkata- 700125**

Signature:
Name: Mahua Pal

Applicant: Brainware University, Kolkata

To,
The Controller of Patents
The Patent Office, at Kolkata

Note: -

- * Repeat boxes in case of more than one entry.
- * To be signed by the applicant(s) or by authorized registered patent agent otherwise where mentioned.
- * Tick (/) / cross (x) whichever is applicable / not applicable in declaration in paragraph-12.
- * Name of the inventor and applicant should be given in full, family name in the beginning.
- * Strike out the portion which is / are not applicable.
- * For fee: See First Schedule”;

FORM 2

THE PATENTS ACT, 1970

(39 of 1970)

&

The Patent Rules, 2003

COMPLETE SPECIFICATION

(See section 10 and rule 13)

TITLE OF THE INVENTION

SPEECH-TO-TEXT COMMAND EXECUTOR FOR SPECIALLY-ABLED PEOPLE

Applicant:

Brainware University, Kolkata,

398, Ramkrishnapur Rd, Near Jagadighata Market, Barasat, Kolkata, West

Bengal 700125.

The following specification particularly describes the nature of the invention and the manner in which it is performed:

FIELD OF THE INVENTION

[001] The invention, in general, relates to voice and gesture recognition, system, method and apparatus. More specifically, the present invention relates to a Speech-to-Text Command Executor for Specially-abled people.

5

BACKGROUND OF THE INVENTION

[002] The following description provides the information that may be useful in understanding the present invention. It is not an admission that any of the information provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

10

[003] Specially-abled individuals often encounter significant challenges when it comes to accessing and utilizing digital technologies. Conventional interfaces, such as keyboards and touchscreens, may not always be accessible or practical for those with mobility impairments or other disabilities. This digital divide can limit their ability to perform everyday tasks and engage with technology on an equal footing with others.

15

[004] Speech recognition technology has evolved tremendously over the years, offering highly accurate and reliable transcription of spoken language into text. This advancement has opened up new possibilities for individuals who may have difficulty with conventional input methods. The system's ability to understand spoken language and convert it into text form provides a bridge between specially-abled users and the digital world. Therefore, by providing specially-abled individuals with the tools to overcome digital barriers and lead more independent and fulfilling lives

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[005] Accordingly, on the basis of aforesaid facts, there remains a need in the prior art to provide a Speech-to-Text Command Executor for Specially-abled people. Therefore, it would be useful and desirable to have a system, method, and interface to meet the above-mentioned needs.

5 **SUMMARY OF THE PRESENT INVENTION**

[006] In view of the foregoing disadvantages inherent in the known types of conventional methods and techniques, are now present in the prior art, the present invention provides a Speech-to-Text Command Executor for Specially-abled people, which has all the advantages of the prior art and none of the disadvantages.

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[007] In one aspect of the present invention, the disclosed invention pertains to not only transcribes spoken commands but also interprets and executes these commands to perform specific tasks. For instance, a user can verbally instruct the system to send a message, control home appliances, navigate a computer, or access information on the internet. This system can be personalized to accommodate the unique needs and preferences of each user, making it a highly customizable and adaptable solution.

15

[008] This innovation is more than just a technical achievement; it represents a significant step towards inclusivity and independence for specially-abled individuals. By enabling them to interact with digital systems through speech, it empowers them to perform tasks, access information, and control their environment with greater ease and autonomy.

20

[009] The Speech-to-Text Command Executor for Specially-abled People represents a significant technological advancement that aims to improve the

quality of life for individuals with disabilities. This innovation harnesses the power of speech recognition and command execution technology to provide specially-abled individuals with an efficient and intuitive means of interacting with various digital systems and devices.

5 **[010]** In this respect, before explaining at least one object of the invention in detail, it is to be understood that the invention is not limited in its application to the details of set of rules and to the arrangements of the various models set forth in the following description or illustrated in the drawings. The invention is capable of other objects and of being practiced and carried out in
10 various ways, according to the need of that industry. Also, it is to be understood that the phraseology and terminology employed herein are for the purpose of description and should not be regarded as limiting.

[011] These together with other objects of the invention, along with the various features of novelty which characterize the invention, are pointed out
15 with particularity in the disclosure. For a better understanding of the invention, its operating advantages and the specific objects attained by its uses, reference should be made to the accompanying drawings and descriptive matter in which there are illustrated preferred embodiments of the invention.

20 **BRIEF DESCRIPTION OF THE DRAWINGS**

[012] The invention will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

[013] FIG. 1, demonstrates a flow diagram of a Speech-to-Text Command Executor for Specially-abled people, in accordance with an embodiment of the present invention.

[014] FIG. 2, illustrates a schematic representation of a Speech-to-Text Command Executor for Specially-abled people, in accordance with an embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[015] While the present invention is described herein by way of example using embodiments and illustrative drawings, those skilled in the art will recognize that the invention is not limited to the embodiments of drawing or drawings described and are not intended to represent the scale of the various components. Further, some components that may form a part of the invention may not be illustrated in certain figures, for ease of illustration, and such omissions do not limit the embodiments outlined in any way. It should be understood that the drawings and detailed description thereto are not intended to limit the invention to the particular form disclosed, but on the contrary, the invention is to cover all modifications, equivalents, and alternatives falling within the scope of the present invention as defined by the appended claims. As used throughout this description, the word "may" is used in a permissive sense (i.e. meaning having the potential to), rather than the mandatory sense, (i.e. meaning must). Further, the words "a" or "an" mean "at least one" and the word "plurality" means "one or more" unless otherwise mentioned. Furthermore, the terminology and phraseology used herein is solely used for descriptive purposes and should not be construed

as limiting in scope. Language such as "including," "comprising," "having," "containing," or "involving," and variations thereof, is intended to be broad and encompass the subject matter listed thereafter, equivalents, and additional subject matter not recited, and is not intended to exclude other additives, components, integers or steps. Likewise, the term "comprising" is considered synonymous with the terms "including" or "containing" for applicable legal purposes. Any discussion of documents, acts, materials, devices, articles and the like is included in the specification solely for the purpose of providing a context for the present invention. It is not suggested or represented that any or all of these matters form part of the prior art base or are common general knowledge in the field relevant to the present invention.

[016] In this disclosure, whenever a composition or an element or a group of elements is preceded with the transitional phrase "comprising", it is understood that we also contemplate the same composition, element or group of elements with transitional phrases "consisting of", "consisting", "selected from the group of consisting of", "including", or "is" preceding the recitation of the composition, element or group of elements and vice versa.

[017] The present invention is described hereinafter by various embodiments with reference to the accompanying drawings, wherein reference numerals used in the accompanying drawing correspond to the like elements throughout the description. This invention may, however, be embodied in many different forms and should not be construed as limited to the embodiment set forth herein. Rather, the embodiment is provided so that this disclosure will be thorough and complete and will fully convey the scope of

the invention to those skilled in the art. In the following detailed description, numeric values and ranges are provided for various aspects of the implementations described. These values and ranges are to be treated as examples only and are not intended to limit the scope of the claims. In addition, a number of materials are identified as suitable for various facets of the implementations. These materials are to be treated as exemplary and are not intended to limit the scope of the invention.

[018] In present invention, the Speech-to-Text Command Executor for Specially-abled People is a transformative technological solution that empowers individuals with disabilities by providing them with a seamless and intuitive means of interacting with digital systems and devices. This innovative system leverages advanced speech recognition and command execution technology to bridge the gap between specially-abled individuals and the digital world.

[019] The present invention pertains to a Speech-to-Text Command Executor for Specially-abled people as disclosed in figure.1, the present invention comprising of a speech recognition module capable of converting spoken commands into text form, a command processing module that interprets the text-form commands and executes corresponding actions, a user interface module to facilitate user interaction with the system and a customizable command library to allow users to define their own speech-to-text commands. The system further comprising a feedback module that adapts the system's recognition capabilities based on user feedback to enhance command execution accuracy. Wherein the speech recognition

module employs natural language processing interface to understand and transcribe spoken commands more accurately. A multi-modal interaction component that enables users to interact with the system using a combination of speech, touch, or gestures. The system featuring a cloud-based architecture that allows for remote data storage and seamless synchronization across multiple devices for a consistent user experience.

[020] In accordance with an embodiment for the present invention, when a user speaks a command, the speech recognition module transcribes it into textual form. This process leverages advanced NLP techniques to ensure precise and accurate transcription. The command processing module interprets the transcribed text-based command and identifies the corresponding action or task to be executed. The system then proceeds to execute the identified action, making it perform tasks as per the user's instruction. The scope of actions may range from sending messages to controlling smart home devices, among many others.

[021] In accordance with an embodiment for the present invention, to further enhance usability, the system supports multimodal interaction, allowing users to engage with it through a combination of speech, touch, or gestures. The user interface module ensures that interaction is intuitive, efficient, and user-friendly. The system's cloud-based architecture facilitates remote data storage and synchronization across various devices. This ensures that users can seamlessly access their customized settings and preferences regardless of the device they are using, promoting a consistent user experience.

[022] In accordance with an embodiment for the present invention, the module is equipped with natural language processing (NLP) algorithms, enabling it to accurately transcribe spoken commands into text format. It supports a wide range of languages and dialects, ensuring inclusivity. Working in tandem with the speech recognition module, the command processing module interprets the transcribed text-based commands and initiates the corresponding actions. This module's capabilities encompass a diverse array of tasks, from sending messages and controlling home appliances to navigating digital interfaces and accessing information online.

[023] In accordance with an embodiment for the present invention, the system features a user interface module that facilitates user interaction with the technology. This module ensures a user-friendly and accessible experience, allowing specially-abled individuals to seamlessly communicate with the system and customize their settings. The library empowers users to define their personalized speech-to-text commands and link them to specific actions. Users can tailor the system to meet their unique needs and preferences, enhancing usability and personalization.

[024] The present invention for Specially-abled People represents a technological milestone in promoting inclusivity and independence for specially-abled individuals. By providing a user-friendly, customizable, and multi-modal interface, this innovation empowers users to interact with digital systems and devices with ease, breaking down digital barriers and creating a more inclusive digital landscape.

[025] It is to be understood that the above description is intended to be illustrative, and not restrictive. For example, the above-discussed embodiments may be used in combination with each other. Many other
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embodiments will be apparent to those of skill in the art upon reviewing the above description.

[026] The benefits and advantages which may be provided by the present invention have been described above with regard to specific embodiments. These benefits and advantages, and any elements or limitations that may
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cause them to occur or to become more pronounced are not to be construed as critical, required, or essential features of any or all of the embodiments.

[027] While the present invention has been described with reference to particular embodiments, it should be understood that the embodiments are illustrative and that the scope of the invention is not limited to these
15
embodiments. Many variations, modifications, additions and improvements to the embodiments described above are possible. It is contemplated that these variations, modifications, additions and improvements fall within the scope of the invention.

We Claim:

1. A speech-to-text command executor system for specially-abled individuals, comprising:

5 a. A speech recognition module capable of converting spoken commands into text form;

b. A command processing module that interprets the text-form commands and executes corresponding actions;

c. A user interface module to facilitate user interaction with the system; and

10 d. A customizable command library to allow users to define their own speech-to-text commands.

2. The system as claimed in claim 1, further comprising a feedback module that adapts the system's recognition capabilities based on user feedback to enhance command execution accuracy.

15 3. The system as claimed in claim 1, wherein the speech recognition module employs natural language processing interface to understand and transcribe spoken commands more accurately.

20 4. The system as claimed in claim 1, further comprising a multi-modal interaction component that enables users to interact with the system using a combination of speech, touch, or gestures.

5. The system as claimed in claim 1, featuring a cloud-based architecture that allows for remote data storage and seamless synchronization across multiple devices for a consistent user experience.

5 6. A method for executing commands via speech-to-text conversion for specially-abled individuals, comprising:

a. Receiving a spoken command;

b. Converting the spoken command into text using speech recognition technology; and

10 c. Processing the text-form command to execute a predefined action.

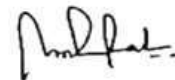
7. The method as claimed in claim 6, further comprising storing a library of predefined speech-to-text commands and corresponding actions.

15 8. The method as claimed in claim 6, includes allowing users to define and customize their own speech-to-text commands and associated actions.

Dated this 20th day of October 2023

Applicant

Brainware University, Kolkata



Registrar

**Brainware University
Barasat, Kolkata- 700125**

20

Signature:

Name: Mahua Pal

ABSTRACT

SPEECH-TO-TEXT COMMAND EXECUTOR FOR SPECIALLY-ABLED PEOPLE

5 [028] This invention presents a Speech-to-Text Command Executor for
Specially-abled people. The present invention comprising of a speech
recognition module with the capability to transform spoken commands into
textual format, a proficient command processing module responsible for
deciphering text-based commands and executing corresponding actions, a
10 user interface module that simplifies user engagement with the system and a
user-customizable command library, enabling users to define their unique
speech-to-text commands. The speech recognition module utilizes a natural
language processing interface for enhanced accuracy in comprehending and
transcribing spoken commands. Further, incorporating a multi-modal
interaction component that empowers users to engage with the system
15 through a blend of speech, touch, or gestures.

Accompanied Drawing [FIG. 1-2]

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A speech-to-text command executor system for specially-abled individuals

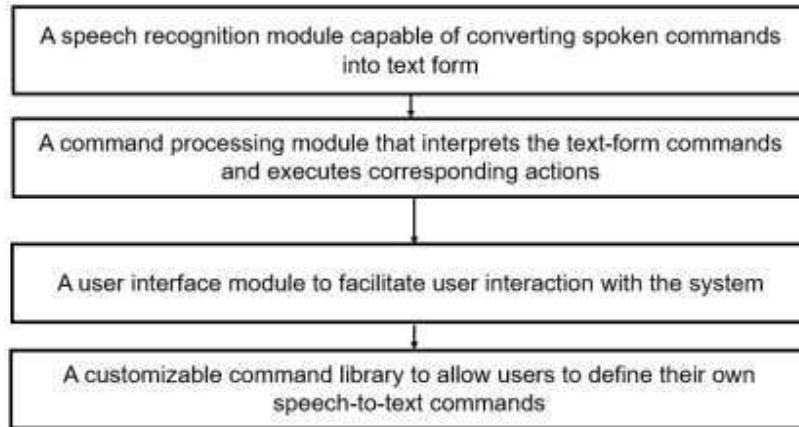


Figure. 1

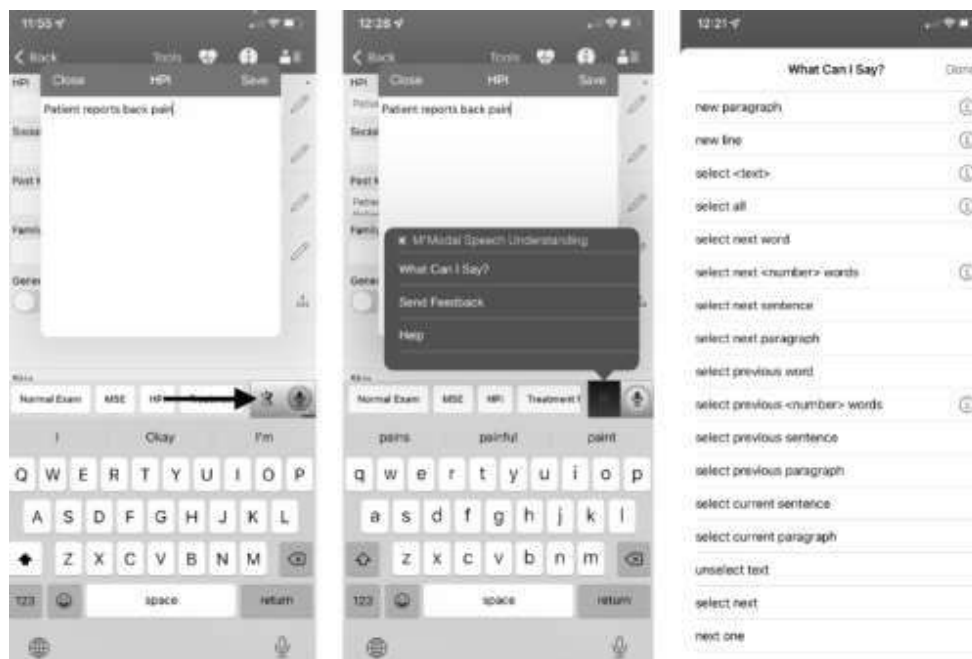


Figure. 2

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Barasat, Kolkata- 700125

Signature:

Applicant Name: Brainware University, Kolkata


FORM 3
 THE PATENTS ACT, 1970
 (39 of 1970)
 and
 THE PATENTS RULES, 2003
STATEMENT AND UNDERTAKING UNDER SECTION
8
 (See section 8; Rule 12)

1. Name of the applicant(s).	We, Brainware University, Kolkata having office at, 398, Ramkrishnapur Rd, Near Jagadighata Market, Barasat, Kolkata, West Bengal 700125.
------------------------------	--

2. Name, address and nationality of the joint applicant.	<p>(i) that I/We have not made any application for the same/substantially the same invention outside India</p> <p>Or</p> <p>(ii) that I/We who have made this application No... dated alone/jointly with....., made for the same/ substantially same invention, application(s) for patent in the other countries, the particulars of which are given below:</p>
--	---

Name of the Country	Date of Application	Application No.	Status of the Application	Date of Publication	Date of grant
-	-	-	-	-	-

3. Name and address of the assignee	<p>(iii) that the rights in the application(s) has/have been assigned to none</p> <p>..... that I/We undertake that upto the date of grant of the patent by the Controller, I/We would keep him informed in writing the details regarding corresponding applications for patents filed outside India within six months from the date of filing of such application.</p> <p style="text-align: right;">Dated this 20th day of October 2023</p>
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4. To be signed by the applicant or his authorized registered patent agent.	 Registrar Brainware University Barasat, Kolkata- 700125 Signature: Name: Mahua Pal
5. Name of the natural person who has signed.	Brainware University, Kolkata Name of the Applicant
	To The Controller of Patents, The Patent Office, at Kolkata
Note.- Strike out whichever is not applicable;	

FORM- 5
THE PATENTS ACT, 1970
(39 of 1970)
&
The Patents Rules, 2003
DECLARATION AS TO INVENTORSHIP
[See Section 10(6) and Rule 13(6)]

1. NAME OF THE APPLICANT(S)

We, **Brainware University, Kolkata** having office at, 398, Ramkrishnapur Rd, Near Jagadighata Market, Barasat, Kolkata, West Bengal 700125.

hereby declare that the true and first inventor(s) of the invention disclosed in the complete specification filed in pursuance of ~~my~~/ our application numbered _____ dated 20-10-2023 is/are

2. INVENTOR(S)

(a) NAME	(b) NATIONALITY	(c) ADDRESS
1. Dr.Naveen Kumar Raman	Indian	Associate Professor, Dept. of Computer Sciences and Engineering, Brainware University, Kolkata
2. Mr. Spandan Mukherjee	Indian	2nd Year Student, Diploma in CSE, Brainware University, Kolkata, West Bengal 700125
3. Mrs. Tandra Mukherjee	Indian	B-32/304, Peerless Nagar, 29F BT Road, Sodepur, Kolkata- 700114
4. Mr. Amit Kumar Bhore	Indian	Assistant Professor, Dept. of Computational Sciences, Brainware University, Kolkata
5. Ms. Rubi Sarkar	Indian	Assistant Professor, Dept. of Computational Sciences, Brainware University, Kolkata

6. Ms. Trisha Nath	Indian	Assistant Professor, Dept. of Computational Sciences, Brainware University, Kolkata
7. Ms. Shramana Ghosh	Indian	Assistant Professor, Dept. of Computer Sciences and Engineering, Brainware University, Kolkata

~~3. DECLARATION TO BE GIVEN WHEN THE APPLICATION IN INDIA IS FILED BY THE APPLICANT(S) IN THE CONVENTION COUNTRY:-~~

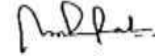
N.A.

~~We the applicant(s) in the convention country hereby declare that our right to apply for a patent in India is by way of assignment from the true and first inventor(s).~~

Dated this 20th day of October 2023

Applicant

Brainware University, Kolkata



**Registrar
Brainware University**

Signature: **Barasat, Kolkata- 700125**

Name: Mahua Pal

To,
The Controller of Patents
The Patent Office, Kolkata

FORM 9

THE PATENT ACT, 1970
(39 of 1970)
&
THE PATENTS RULES, 2003

REQUEST FOR PUBLICATION

[See section 11A (2) rule 24A]

I/We **Brainware University, Kolkata** hereby request for early publication of my/our [Patent Application No.]
TEMP/E-1/85049/2023-KOL

Dated **21/10/2023 00:00:00** under section 11A(2) of the Act.

Dated this(Final Payment Date):-----

Signature

Name of the signatory

To,
The Controller of Patents,
The Patent Office,
At Kolkata

This form is electronically generated.